

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claim 1. (Currently Amended) A waterborne copolymer dispersion ~~characterised in, that it comprises~~ comprising 0.1-25%, ~~such as 1-10% or 2-6%,~~ by weight of at least one alkenyl functional dendritic polymer built up from a dendritic core polymer, which core polymer is a hydroxy-functional dendritic polyester, polyether, polyesteramide or polyetheramide and optionally is chain extended, and at least one alkenyl functional compound bonded to said core polymer and/or its optional chain extension, and that said alkenyl functional dendritic polymer is copolymerised to a polymer backbone of at least one homo or copolymer obtainable by polymerisation in an aqueous medium of at least one polymerisable allyl, vinyl, maleic or diene monomer.

Claim 2. (Currently Amended) A copolymer dispersion according to Claim 1 ~~characterised in, that,~~ wherein said at least one alkenyl functional dendritic polymer is copolymerised to said polymer backbone in a one stage emulsion copolymerisation.

Claim 3. (Currently Amended) A copolymer dispersion according to Claim 1 ~~characterised in, that,~~ wherein said at least one alkenyl functional dendritic polymer is copolymerised to polymer backbone in a multi stage emulsion copolymerisation.

Claim 4. (Currently Amended) A copolymer dispersion according to Claim 2 ~~or 3 characterised in, that,~~ wherein said emulsion copolymerisation yields latex particles having a heterogeneous morphology, such as a core-shell morphology.

Claim 5. (Currently Amended) A copolymer dispersion according to ~~Claim 1-4 characterised in, that~~ Claim 1, wherein said dendritic core polymer is chain extended by addition of at least one alkylene oxide.

Claim 6. (Currently Amended) A copolymer dispersion according to Claim 5 ~~characterised in, that,~~ wherein said alkylene oxide is ethylene oxide, propylene oxide, 1,3-butylene oxide, 2,4-butylene oxide, cyclohexene oxide, butadiene monoxide and/or phenylethylene oxide.

Claim 7. (Currently Amended) A copolymer dispersion according to ~~any of the Claims 1-6 characterised in, that~~ Claim 1, wherein said alkenyl functionality is obtained by addition of at least one aliphatic or aromatic unsaturated carboxylic acid or a corresponding anhydride or halide.

Claim 8. (Currently Amended) A copolymer dispersion according to ~~any of the Claims 1-7 characterised in, that~~ Claim 7, wherein said alkenyl functionality is obtained by addition of acrylic acid, methacrylic acid, crotonic acid, isocrotonic acid, or a corresponding anhydride or halide; maleic acid or anhydride and/or fumaric acid; or soybean fatty acid, linseed fatty acid, tall oil fatty acid, castor fatty acid,

dehydrated castor fatty acid, sunflower fatty acid, oleic acid, linoleic acid and/or linolenic acid.

Claim 9. (Currently Amended) A copolymer dispersion according to ~~any of the Claims 1-7 characterised in, that~~ Claim 1, wherein said alkenyl functionality is obtained by addition of at least one unsaturated carboxyfunctional ester, polyester, ether and/or polyether.

Claim 10. (Currently Amended) A copolymer dispersion according to ~~any of the Claims 1-7 characterised in, that~~ Claim 1, wherein said alkenyl functionality is obtained by reaction with at least one alkenyl halide, such as allyl chloride and/or allyl bromide.

Claim 11. (Currently Amended) A copolymer dispersion according to ~~any of the Claims 1-7 characterised in, that~~ Claim 1, wherein said alkenyl functionality is obtained by addition of an unsaturated carboxy-functional ester of at least one saturated or unsaturated di, tri or polyfunctional carboxylic acid and at least one hydroxyfunctional allyl ether of at least one di, tri or polyhydric alcohol or at least one di, tri or polyhydric reaction product between at least one alkylene oxide and at least one hydroxyfunctional allyl ether of at least one di, tri or polyhydric alcohol.

Claim 12. (Currently Amended) A copolymer dispersion according to ~~Claim 11 characterised in, that,~~ wherein said di, tri or polycarboxylic acid is selected from the group consisting of maleic acid, fumaric acid, o-phthalic acid, isophthalic

acid, terephthalic acid, tetrahydrophthalic acid, hexahydrophthalic acid, azeleic acid, adipic acid, trimellitic acid and a to a said acid corresponding anhydride.

Claim 13. (Currently Amended) A copolymer dispersion according to ~~any of the Claims 1-6 characterised in, that~~ Claim 6, wherein said alkenyl functionality is obtained by addition of an unsaturated carboxy-functional ester of maleic acid or anhydride and/or fumaric acid at least one saturated or unsaturated di, tri or polyhydric alcohol or at least one di, tri or polyhydric reaction product between at least one alkylene oxide and at least one saturated or unsaturated di, tri or polyhydric alcohol.

Claim 14. (Currently Amended) A copolymer dispersion according to ~~any of the Claims 1-13 characterised in, that~~ Claim 11, wherein said at least one alkylene oxide is ethylene oxide, propylene oxide, 1,3-butylene oxide, 2,4-butylene oxide, cyclohexene oxide, butadiene monoxide and/or phenylethylene oxide.

Claim 15. (Currently Amended) A copolymer dispersion according to ~~any of the Claims 11-14 characterised in, that~~ Claim 11, wherein said di, tri or polyhydric alcohol is selected from the group consisting of 1, ω -diol, a 5,5-di(hydroxyalkyl)-1,3-dioxane, a 2-alkyl-1,3-propanediol, a 2,2-dialkyl-1,3-propanediol, a 2-hydroxy-1,3-propanediol, a 2-hydroxy-2-alkyl-1,3-propanediol, a 2-hydroxyalkyl-2-alkyl-1,3-propanediol, a 2,2-di(hydroxyalkyl)-1,3-propanediol and a dimer, trimer or polymer of a said di, tri or polyhydric alcohol.

Claim 16. (Currently Amended) A copolymer dispersion according to Claim 15 characterised in, that, wherein said alkyl is C₁-C₂₄ alkyl or C₂-C₂₄ alkenyl, such as C₄-C₁₂ or C₂-C₈ alkyl or alkenyl.

Claim 17. (Currently Amended) A copolymer dispersion according to ~~any of the Claims 11-14 characterised in, that~~ Claim 11, wherein said di, tri or polyhydric alcohol is selected from the group consisting of 1,4-butanediol, 1,5-pentanediol, 1,6-hexanediol, 1,6-cyclohexane dimethanol, 5,5-di-hydroxymethyl-1,3dioxane,2-methyl-1,3-propanediol,2-methyl-2-ethyl-1,3-propane-diol, 2-ethyl-2-butyl-1,3-propanediol, neopentyl glycol, dimethylolpropane, 1,1-di-methylolcyclohexane, glycerol, trimethylolethane, trimethylolpropane, diglycerol, ditrimethylolethane, ditrimethylolpropane, pentaerythritol, dipentaerythritol, anhydroenneaheptitol, sorbitol and mannitol.

Claim 18. (Currently Amended) A copolymer dispersion according to ~~any of the Claims 1-17 characterised in, that~~ Claim 1, wherein said polymerisable monomer is acrylic acid, methacrylic acid, crotonic acid, isocrotonic acid, itaconic acid, maleic anhydride and/or fumaric acid.

Claim 19. (Currently Amended) A copolymer dispersion according to ~~any of the Claims 1-17 characterised in, that~~ Claim 1, wherein said polymerisable monomer is glycidyl acrylate or glycidyl methacrylate.

Claim 20. (Currently Amended) A copolymer dispersion according to ~~any of the Claims 1-17 characterised in, that~~ Claim 1, wherein said polymerisable monomer is acrylamide, methacrylamide and/or ethylimidazolidon methacrylate.

Claim 21. (Currently Amended) A copolymer dispersion according to ~~any of the Claims 1-17 characterised in, that~~ Claim 1, wherein said polymerisable monomer is a C₁-C₁₀ alkyl acrylate or methacrylate, ~~such as methyl acrylate, ethyl acrylate, butyl acrylate, 2-ethylhexyl acrylate, methyl methacrylate, ethyl methacrylate and/or butyl methacrylate.~~

Claim 22. (Currently Amended) A copolymer dispersion according to ~~any of the Claims 1-17 characterised in, that~~ Claim 1, wherein said polymerisable monomer is ethylene and/or propylene.

Claim 23. (Currently Amended) A copolymer dispersion according to ~~any of the Claims 1-17 characterised in, that~~ Claim 1, wherein said polymerisable monomer is styrene and/or divinylstyrene.

Claim 24. (Currently Amended) A copolymer dispersion according to ~~any of the Claims 1-17 characterised in, that~~ Claim 1, wherein said polymerisable monomer is vinylacetate, vinyl propionate, vinyl versatate and/or dibutyl maleate.

Claim 25. (Currently Amended) A copolymer dispersion according to ~~any of the Claims 1-17 characterised in, that~~ Claim 1, wherein said polymerisable monomer is butadiene and/or isoprene.

Claim 26. (Currently Amended) A copolymer dispersion according to ~~any of the Claims 1-25 characterised in, that it comprises~~ Claim 1, comprising at least one polymerisable surfactant and/or a conventional surfactant.

Claim 27. (Currently Amended) ~~Use of a waterborne copolymer dispersion according to any of the Claims 1-26, in binders for coatings, such as~~ A coating composition for use as a decorative and/or protective paints and lacquers, adhesives and glues paint, lacquer, adhesive, or glue comprising as a binder a waterborne copolymer dispersion according to Claim 1.

Claim 28. (New) A waterborne copolymer dispersion according to Claim 1 wherein said at least one alkenyl functional dendritic polymer is present in a concentration of 1-10% by weight.

Claim 29. (New) A waterborne copolymer dispersion according to Claim 1 wherein said at least one alkenyl functional dendritic polymer is present in a concentration of 2-6% by weight.